CLAIMS

WHAT IS CLAIMED IS:

1. A method comprising:

forming a central aperture in a substrate;

forming an electrically conductive trace on a first surface of said substrate, said trace comprising a tab; and

supporting an image sensor in said central aperture by said tab.

2. The method of Claim 1 further comprising forming an interconnection ball aperture in said substrate, an end of said trace sealing said interconnection ball aperture at said first surface of said substrate.

3. The method of Claim 2 further comprising forming an interconnection ball in said interconnection ball aperture.

4. The method of Claim 3 wherein said interconnection ball is electrically connected to said trace.

5. The method of Claim 1 wherein said supporting comprises flip chip mounting said image sensor to said tab.

6. The method of Claim 1 wherein said supporting comprises forming a bump between a bond pad on a first surface of said image sensor and said tab.

7. The method of Claim 6 wherein said image sensor further comprises an active area on said first surface of said image sensor, said active area being unobstructed by said tab.

8. The method of Claim 7 further comprising coupling a window to said first surface of said image

sensor, said window covering and protecting said active area.

9. The method of Claim 8 further comprising directing radiation at said image sensor, said radiation striking said window, passing through said window, and striking said active area, said active area responding to said radiation.

10. The method of Claim 7 wherein said tab extends below a periphery of said central aperture.

11. The method of Claim 1 wherein said forming an electrically conductive trace comprises:

coupling an electrically conductive sheet to said first surface of said substrate; and

patterning said sheet to form said trace.

12. The method of Claim 1 wherein an image sensor substrate comprises a plurality of substrates comprising said substrate, said method further comprising singulating said image sensor substrate.

13. A method of forming an image sensor package comprising:

forming a central aperture in a substrate;

forming interconnection ball apertures in said substrate;

forming traces coupled to a first surface of said substrate, said traces comprising tabs projecting beyond a sidewall of said central aperture, wherein ends of said traces seal said interconnection ball apertures at said first surface of said substrate;

supporting an image sensor in said central aperture by said tabs; and

forming interconnection balls in said interconnection ball apertures, said interconnection

balls being electrically connected to said ends of said traces.

14. The method of Claim 13 wherein said supporting comprises forming bumps between bond pads of said image sensor and said tabs.

15. The method of Claim 14 wherein a first surface of said image sensor comprises said bond pads and an active area, said active area being unobstructed by said tabs.

16. The method of Claim 13 wherein said supporting comprises flip chip mounting said image sensor to said tabs.

17. The method of Claim 13 wherein an image sensor substrate comprises a plurality of substrates comprising said substrate, said method further comprising singulating said image sensor substrate.

18. A method of forming an image sensor package comprising:

forming a central aperture in a substrate;

forming an interconnection ball aperture in said substrate;

coupling a first surface of an electrically conductive sheet to a first surface of said substrate, said sheet covering said central aperture and said interconnection ball aperture at said first surface of said substrate;

forming a first mask on a second surface of said substrate, said first mask filling said central aperture and said interconnection ball aperture;

forming a second mask on a second surface of said sheet, said second mask covering and protecting a trace region of said sheet and exposing an etch region of said sheet;

removing said etch region of said sheet, wherein said trace region forms a trace, said trace comprising a tab projecting below said central aperture, said trace further comprising an end sealing said interconnection ball aperture;

removing said first mask and said second mask;

forming a bump between a bond pad of an image sensor and said tab, said image sensor being supported in said central aperture by said tab; and

forming an interconnection ball in said interconnection ball aperture, said interconnection ball being electrically connected to said end of said trace.

19. The method of Claim 18 further comprising covering and protecting an active area on a first surface of said image sensor with a window.

20. The method of Claim 19 wherein said active area is unobstructed by said tab.

21. The method of Claim 18 wherein an image sensor substrate comprises a plurality of substrates comprising said substrate, said method further comprising singulating said image sensor substrate.